

53-09 A-dec Pac 1 3420 Field Unit & Compressor (Project 97-05) (8/97)

The A-dec Pac 1 3420 Field Unit & Compressor are designed to be used together to provide the capability to perform general dental procedures under field conditions. The unit and compressor are supplied in two plastic cases (modules) with a combined weight of 180 pounds. The system is easily assembled in minutes. The unit is supplied with two handpiece connections: one for a highspeed or sonic scaler and one for a slowspeed handpiece. Fiberoptic capability is available but not standard. The unit also features a foot control with wet/dry toggle switch, air/water syringe, manual handpiece selector switch, and separate water system with handpiece flush. Unit controls include adjustment knobs for drive air, air coolant, and water coolant. The air venturi suction can be configured to provide both high- and low-volume evacuation. To maximize performance, simultaneous operation of both high- and low-volume evacuation is not recommended. The second module contains the : horsepower oil-less compressor with 1-gallon air storage tank. The unit can be configured for either 120 or 240 volts but is not operator switchable.



Manufacturer:

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Suggested Retail Price: \$3,115.00

Government Price: \$1,609.11

ADVANTAGES:

- + Compact and easy to assemble; specifically designed for field use.
- + Packaged in two easy-to-transport cases.
- + Smooth, simple design is easily barrier-protected or disinfected.
- + Unit controls are easy to understand and use.
- + Provided with a thermal-overload protector to shut off the compressor should the motor overheat.
- + Provided with written waterline disinfection protocol.
- + Access to internal components for adjustment or repair is easy.
- + The operation/service manual is complete, easy to understand and contains an excellent troubleshooting guide.

DISADVANTAGES:

- Did not meet minimum specifications for high- or low-volume suction performance.
- Compressor is not field-switchable between 120 and 240 volts.
- Noise level judged objectionable by most evaluators.
- Lacks a 120-volt duplex outlet needed to power accessory equipment such as an amalgamator and curing light.
- An external 120-volt outlet is needed in the treatment area to power the optional fiberoptic handpiece lighting system.
- Does not provide a master on/off switch or visible on/off indicator.
- Compressor is not equipped with resettable circuit breaker.
- Waste collection system requires manual activation and does not contain either a solids collector or automatic overflow prevention device.

SUMMARY AND CONCLUSIONS:

The A-dec Pac 1 3420 Field Unit and Air Compressor is designed for use in a field environment. The unit and compressor meet all electrical safety tests but the compressor supplied is not field-switchable between 120 and 240 volts as required. A required step-down transformer and duplex electrical outlet needed to power such accessory equipment as an amalgamator or curing light are not provided. The cart's controls are accessible, easy to understand, and meet military specifications for the control of drive air, coolant air, and coolant water. The optional handpiece fiberoptic light system provided excellent illumination. The air compressor generated noise levels such that two of the three clinical evaluators reported the noise was objectionable. The waste collection system does not contain a solids collector or automatic overflow prevention device as required. The operational instructions are complete, easy to understand, and include a very helpful troubleshooting guide. The air-venturi suction failed to meet the minimal military specifications for both the high- and low-volume suction and two of the three clinical evaluators reported the suction was inadequate. The **A-dec Pac 1 3420 Field Unit and Air Compressor** is rated **Marginal** for use by the federal dental services.